Bio and Chemical Sensors in Medical, Agriculture and Environment

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ABSTRACT

The application of bio and chemical sensors in medical, agriculture and environment are important aspects in our life particularly in industrial revolution 4.0. Some of the popular fields implementing the use of biosensors is the food industry to keep a check on its quality and safety, in medical science for diseases screening and rapid detection of viruses/bacterias and water reservoir monitoring for clean water supply.

The various types of biosensors such as immunosensors, DNA biosensors, aptasensors and integrated biosensors with microfluidic, internet of things will be deliberated here to highlight their indispensable applications in various fields.

PROFILE

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EDUCATION

2008, Postdoctoral Fellowship under Professor Lisa Hall, Institute of Biotechnology, Cambridge University.
2002, Doctoral Degree in Analytical Chemistry from UniversitiKebangsaan Malaysia
1998, BSc with Honours in Chemistry, UniversitiKebangsaan Malaysia

WORK EXPERIENCE

2013 – Professor in Analytical Chemistry, Department of Chemistry, Faculty of Science, UPM
2015-2017Director of Institute of Advanced Technology, UPM
2013-2015Head of Functional Devices, Institute of Advanced Technology, UPM
2002-2013Lecturer in Chemistry, Department of Chemistry, Faculty of Science, UPM

BRIEF BIOGRAPHY

Nor Azah Yusof, who was born on October 24, 1973 is a leading academic at the Universiti Putra Malaysia. She is known for its impressive achievements in various academic branches. Her research has resulted in more than 200 journal articles and 63 conference articles. Of this amount, 75% was as a main author and communicator. 60% of the journals are in the Q1 and Q2. Her articles have been cited 4000 times by international researchers, including leading researchers in her field. Her expertise in the field of sensor allows her to be elected as the auditor of articles by various international journals. She has 10 national and international patents. The result of her achievements, she was appointed a professor at the age of 39 years. She is also the recipient of research grants in total of almost MYR 10 million of funding from various national sources and abroad. She has guided 40 graduate students. Some of her students are now serving as academics and researchers in research institutions, universities and industry. She has been awarded as Top Research Scientist Malaysia (TRSM) for 2012 and received Oustanding Researcher Award for 2017. She started working on optical chemical sensor for toxic metal detection. She further developed her expertise on electrochemical based biosensor. She has been working on DNA based biosensor and proteinbased biosensor for 10 years. Further information can be obtained from our group website www.upmbiosensor.com.

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